

## **CURRENT STATUS OF THE CLAIMS**

### **In the Claims**

The following is a marked-up version of the claims with the language that is underlined (“    ”) being added and the language that contains strikethrough (“~~—~~”) being deleted:

1-44 (CANCELED)

45. (ORIGINAL) A method of metallizing a nanostructure, comprising the steps of: forming a nanosphere; metallizing the nanosphere with a metal; and forming a metallized nanosphere that has been metallized with the metal.
46. (ORIGINAL) The method of claim 45, wherein the step of metallizing the nanosphere with the metal, includes metallizing a nanosphere with copper.
47. (ORIGINAL) The method of claim 45, wherein the step of forming the metallized nanosphere, includes the step of forming a metallized copper nanosphere that has been metallized with about 3 weight percent copper.
48. (ORIGINAL) The method of claim 45, wherein the step of metallizing the nanosphere with a metal, includes the step of metallizing a nanosphere with a metal selected from the group consisting of: copper, tin, aluminum, silver, platinum, palladium, iron, cobalt, and nickel.
49. (ORIGINAL) The method of claim 45, wherein the step of forming the metallized nanosphere, includes the step of forming a metallized metal nanosphere, wherein the metal is selected from the group consisting of: copper, tin, aluminum, silver, platinum, palladium, iron, cobalt, and nickel.

50. (ORIGINAL) The method of claim 45, wherein forming the nanosphere includes the step of forming a nanosphere under thermal conditions.
51. (PREVIOUSLY PRESENTED) The method of claim 50, wherein the step of forming the nanosphere under thermal conditions comprises the step of forming a nanosphere in the temperature range of about 800 °C to about 1500 °C.
52. (ORIGINAL) The method of claim 45, wherein forming the nanosphere includes the step of forming a nanosphere under non-catalytic conditions.
53. (CANCELLED)
54. (PREVIOUSLY PRESENTED) A method of preparing a nanosphere, comprising the steps of:
- providing at least one composition selected from the group consisting: of a metal composition, a metal oxide composition, and combinations thereof, wherein the metal of the metal composition and the metal of the metal oxide are selected from the group consisting of: tin, chromium, iron, nickel, silver, titanium, cobalt, zinc, platinum, palladium, osmium, gold, lead, iridium, molybdenum, vanadium, and aluminum;
  - exposing the composition to thermal conditions of about 800°C to about 1500°C and at a pressure from about 200 to 650 Torr;
  - vaporizing the composition while flowing an inert gas over the composition;
  - forming a plurality of substantially monodisperse metal oxide nanospheres via a condensation reaction under non-catalytic conditions; and
  - metallizing the nanosphere with a metallization metal selected from the group consisting of: tin, iron, nickel, silver, cobalt, platinum, aluminum, and copper by contacting the nanospheres with a solution including a metallization metal complex.